

HEALING BICYCLE OWNER'S HANDBOOK





The symbol of Master Cycle Traders — New Zealand's leading cycle sales and service retailers. Look for the Healing range at MCT stores nationwide.

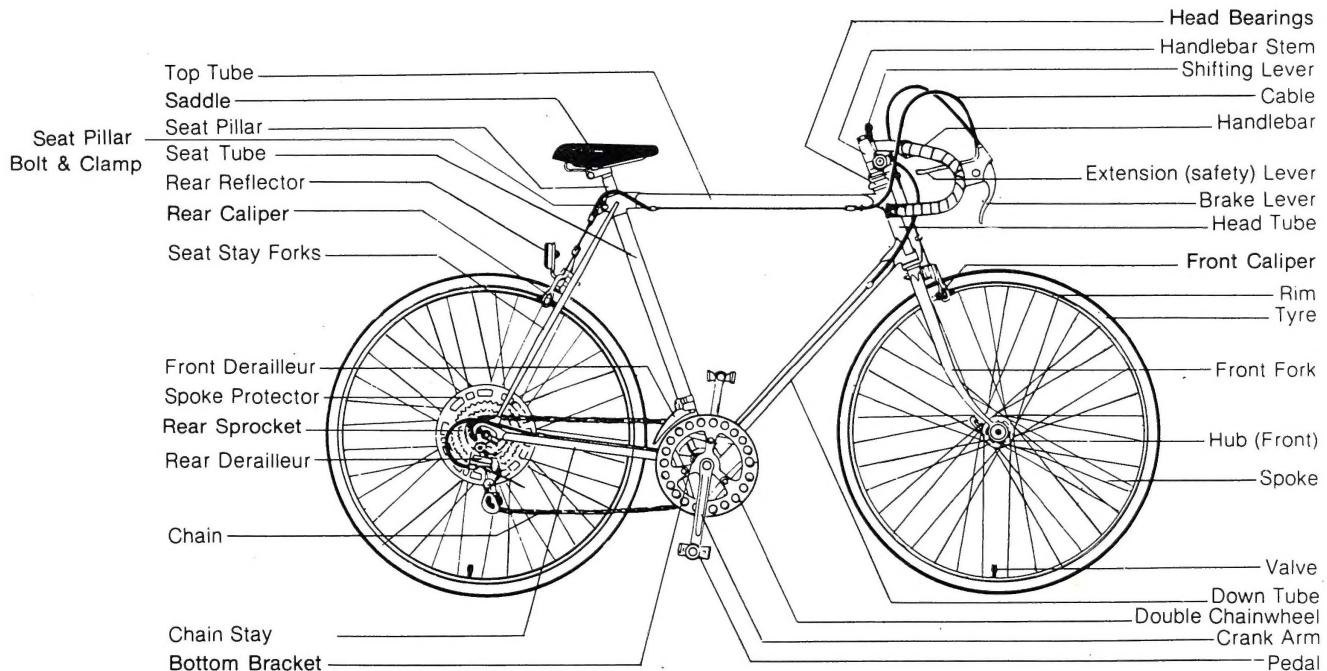


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Healing Industries Ltd

PARTS DESCRIPTION OF 10-SPEED BICYCLE

4



IMPORTANT: Please carefully note the names of all parts of your bicycle

PLEASE READ BEFORE USING YOUR BICYCLE

Dear Customer,

This handbook contains instructions that will help you to better understand how your new Healing bicycle works, and how to keep it in good operating condition.

Your bicycle has been carefully engineered and manufactured to give you dependable and long-lasting performance, provided you give it reasonable care as recommended in this handbook.

The drawings shown are representative, and if a part of your bicycle is slightly different from the one illustrated, you should nevertheless be able to follow the directions and fully understand the explanations. See any special instructions that may come attached to the bicycle.

If you should need any replacement parts, refer to your nearest Cycle Dealer who will be happy to help. We suggest you also take note of the serial number (under bottom bracket by pedal crank) of your bicycle in the event that it is stolen and identification is necessary.

Finally, welcome to the growing band of Healing users, and we feel sure you will enjoy many happy hours of cycling, be it for recreation, or as a regular means of transport.

HEALING INDUSTRIES LTD.

Bicycle safety

Make sure the bicycle fits the intended rider, as bicycles come in a variety of sizes, and personal adjustment of seat and handlebars are necessary to assure maximum safety and comfort.

Riders must be able to straddle a 10 Speed with up to 1" clearance above the top tube when standing.

In the case of a Lady's frame it is recommended that the rider be able to balance the cycle with both feet on the ground whilst seated on the saddle.

Use of gears

The proper way to use 10 or 12 speed derailleuer gears while riding it is to keep pedalling at a regular pace, then slacken off slightly, move the shift lever gradually until the chain shifts to the next gear. Then resume pedalling. Remember **never** back pedal while shifting gears, always shift gear before reaching the up grade of a hill, and shift only when pedals and wheels are moving.

Gear Shifters appear on the handlebar stem or the down tube or in some cases as thumb shifters separately on the handlebars. The operation of all gear shifters is the same.

3 Speed Hub. A bicycle equipped with a three speed rear hub allows some adjustments to be made to changing road and wind conditions. The Shimano three speed hub has an internal shifting mechanism with optimum gear ratios for the various travelling conditions.

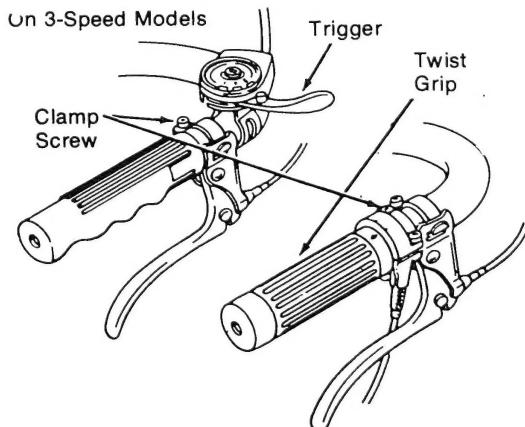
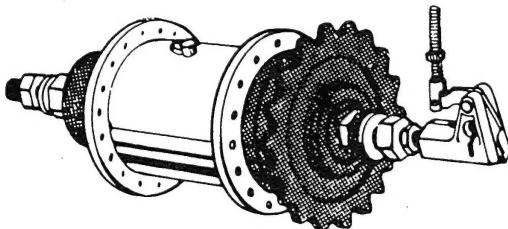
Compared to the external shifting mechanism, the internal type does not need any special ability to operate, and a rider can very quickly become proficient. Another feature is the ability to change gear even when stationary, greatly assisting the rider at traffic lights or situations requiring a sudden stop.

The basic principles for selecting gear ratios are:

1. Travelling uphill or against the wind, pedalling is difficult and the speed decreases at the normal gear ratio. Shift the control to "Low" to increase power for easier pedalling.
2. Set the control to "Normal" when travelling on a flat road in calm weather.
3. When travelling downhill or when a strong wind is blowing from behind, use the "High" drive ratio.

Reduce pedal pressure during a gear shift to prevent wear on the internal parts of the hub and ensure that the gear indicator is centred so the gears mesh properly.

3-SPEED HUB

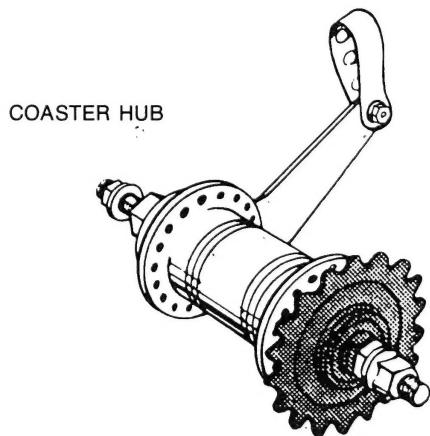


Use of brakes

In general, the left brake lever controls the rear brake, and the right controls the front. When you stop 80% of the braking power is in the front brake. Apply the rear brake first and then the front to bring you to a complete stop. The extension safety lever (10 Speed) should only be used for slowing down at lower speeds. Applying the rear brake first also allows the rider to give the required hand signal.

Apply brakes with caution, particularly if roads are slippery — proper adjustment and cable lubrication will help but ride carefully, and apply your brakes sooner than normal conditions would require. Always test your brakes before starting off on your journey.

Coaster Brake Rear Hubs. Models fitted with Coaster Brake Rear Hubs. Brakes are applied by pedalling backwards.



How to be safe

If any component on your bicycle is damaged, have it replaced in order to maintain optimum safety conditions. Safer riding begins with the proper attitude toward other riders and other road users, and also toward the condition of your bicycle. A neglected bike can be a dangerous machine and a rider who ignores safety rules can be dangerous to oneself and others.

Important rules for safe bicycling

1. Observe all traffic regulations, red and green lights, one way streets, stop signs, etc.
2. Keep well to the left and ride in a straight line.
3. Give pedestrians the right of way. Use Cycle Ways where provided.
4. Look out for cars pulling out into traffic, keeping a sharp lookout for sudden opening of car doors.
5. Never try to "hitch" a ride on other vehicles, or race in traffic.
6. Never carry other riders — carry no packages that obstruct vision or impair proper control of bicycle.
7. Be sure your brakes are operating efficiently and keep your bicycle in perfect running order.
8. Slow down at all street intersections and look to left and right before proceeding.
9. Always use proper hand signals for stopping and turning.

Careful attention by all to the above will make for accident free cycling.

Always ride carefully

Inspection and maintenance

When repairs or maintenance service are required, it is recommended that the work is done at your nearest Cycle Dealer.

1. Make frequent inspections of your bicycle to ensure that all nuts, bolts and hardware items are tight and no parts are worn or damaged.
2. Caliper Brakes. Keep brake shoes adjusted to rim and replace worn or missing shoes. Do not wax or oil rims.
3. Control Cables. Replace worn or damaged cables and do not kink. Cables stretch with use, so adjust regularly.
4. Front Fork. Bent or damaged forks should be replaced. Never attempt to repair by straightening without consulting your cycle mechanic first.
5. Head Bearings. Keep tight. The handlebar must turn freely.
6. Front Wheel. Keep the axle nut tight, the wheel centred in the forks, and ensure axle cones are not overtightened.
7. Cranks & Pedals. Replace bent cranks, do not attempt to straighten without consulting your cycle mechanic. If bearings are tight or frozen and if thread is gone or badly worn replace pedals.
8. Rear Sprockets. Replace if sprocket teeth are bent or damaged.
9. Rear Wheels. Keep axle nut tight and wheel centre on chain stays, and ensure axle cones are not overtightened.

10. **Wheel Alignment.** Wheel should rotate smoothly without wobbling from side to side. Have it aligned if necessary by spoke adjustment, and keep all axle nuts tight. (Your dealer can "true" wheel if necessary).
11. **Handlebars.** Adjust for your own comfort and growth, making sure the insertion mark on handlebar stem remains in the frame, and tighten securely. Replace worn grips or tapes and make sure they fit snugly. (See page 13 for adjustments).
12. **Chains.** Check frequently for damage and stretch, readjusting as necessary. Lubricate frequently using a lightweight all purpose oil.
13. **Derailleur Unit.** 10 speed or 12 speed. Shift lever only while pedalling — units to be regularly adjusted. Make sure the bicycle does not fall and possibly damage the derailleur unit.
14. **Front Chainwheel.** Must always be aligned and run true for smooth gear changing.
15. **Saddle Adjustment.** Adjust for your personal comfort. Securely tighten the bolt on the saddle pillar, position the angle of the saddle for comfort, and tighten clamp until saddle will no longer move. Always ensure that at least 50mm of the stem remains in the frame.
16. **Tyres.** Make sure the tyres are inflated according to instructions on the side of the tyre. The tyre should be properly seated in the rim, and the fitting of the tyre bead should be checked.
17. **Reflectors.** Should be securely fastened and positioned for identification at night time — damaged units should be replaced promptly.

Operation and adjustment

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WHEELS. Each spoke in the wheel has an adjusting nipple at the rim, so that the spokes are of equal tension in order to keep the rim in true shape. Spoke wrenches are available from your local cycle shop for regular maintenance purposes, but if major adjustments are to be made your cycle mechanic should "true" the wheel for you.

Tyre pressure must be maintained at recommended levels.

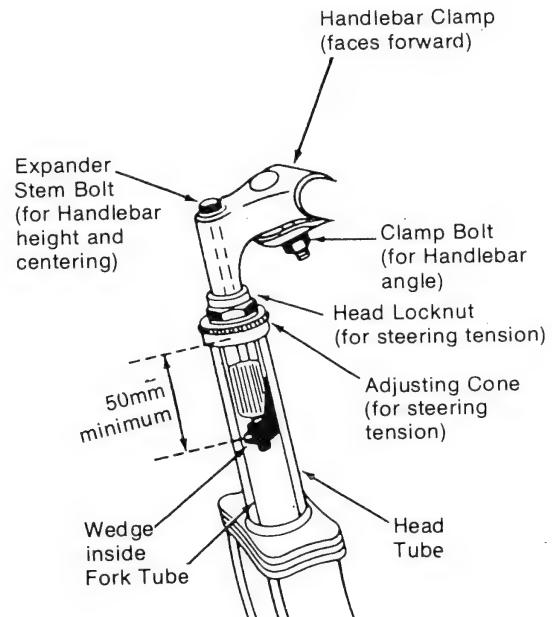
Keep the inner tube valve straight up in the rim and the valve cap in place. Ensure that tyres and the rims are free from oil and grease.

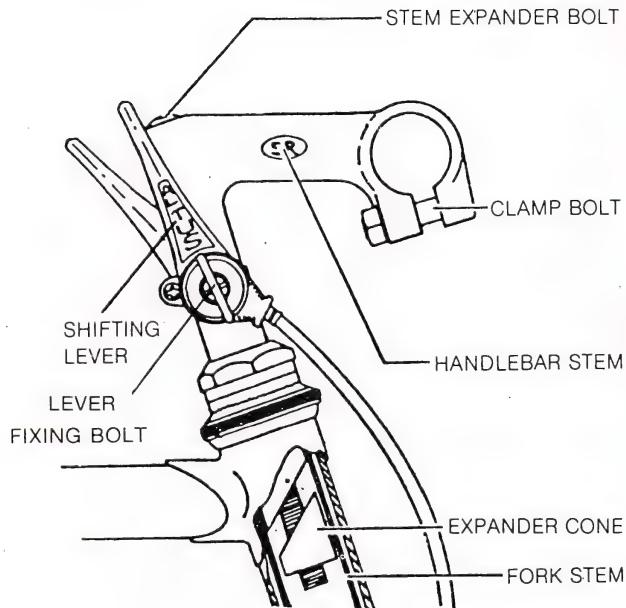
Chain. (10 Speed) The chain on the 10 and 12 speed bicycles are of the continuous type (without a master link) and provide smooth gear changes and quiet performance.

Chain tension is kept constant by the tension pulley of the rear derailleur and little, if any, adjustment to the chain is required. The only maintenance required is to lubricate regularly the entire chain length, and wipe off any excess oil with a rag.

Chain. (Other Cycles) The chain is an important part of the bicycle and must be correctly adjusted for easy riding and to prevent wear. The chain is adjusted by moving the rear wheel in the frame. Forward movement to loosen and backward to tighten. The wheel should be centred between the frame sides after adjustment. For correct tension there should be enough slack to allow an up and down movement of approximately 10mm in the centre of the chain. After adjustment to three speed models, the control cable may have to be reset.

Steering. If the handlebar feels too tight or too loose when being turned, the tension on the bearings inside the head can be adjusted, by first loosening the head lock nut and then loosening or tightening the adjusting cone. Check for too much looseness by lifting against the handlebar and any excessive up and down movement means the bearings are too loose. After adjustment be sure to tighten the head lock nut.





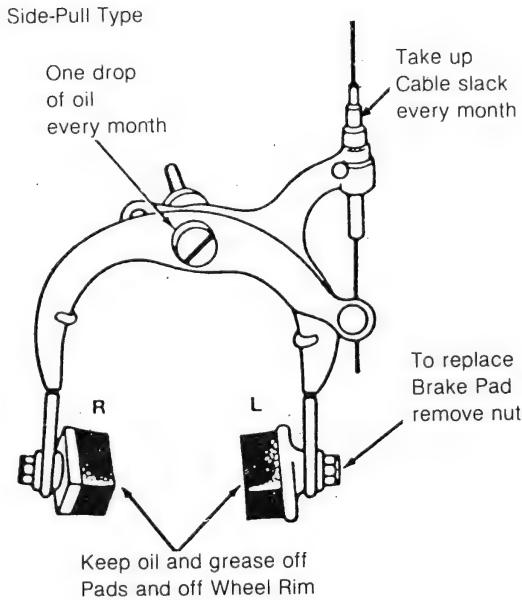
The stem of the handlebar is fixed tightly by an expander cone, to the tube of the front fork. You will naturally want the height of the handlebars to feel comfortable when riding and adjustment is easy. Loosen the stem expander bolt, tap the bolt to loosen the cone and adjust the height accordingly. Do NOT raise above the safety mark on the stem, or over tighten the expander bolt as damage can occur to the stem and/or bearings.

The angle of the handlebars can be adjusted by first loosening the clamp bolt, setting the required position and retightening.

Brakes (Caliper and Coaster Hub).

Your bicycle is equipped with either Side Pull Caliper brakes on both front and rear wheels, operated by hand brake levers mounted on the handlebars, or Coaster Brake Hubs applied by pedalling backwards. When the brake levers are squeezed two brake arms with rubber pads are forced together and grip the wheel rim, bringing the bicycle to a stop.

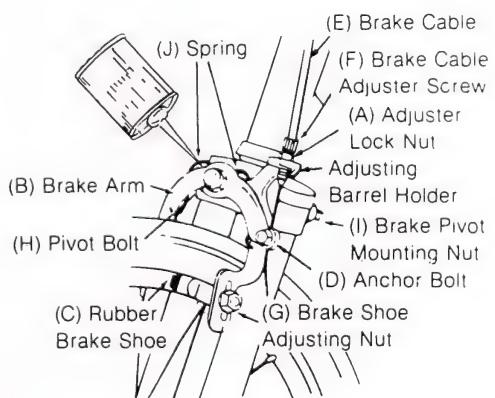
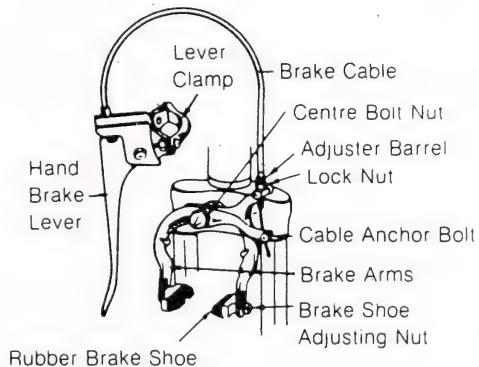
Note, some pads are tapered to fit the shape

(Cont:) **Operation and adjustment**

of the rim and also may be marked left and right for correct assembly.

Frequently check brake bolts and nuts are tight and that the rubber brake blocks fit squarely on the rim. Rubber pads will wear under normal usage and regularly have to be replaced. When replacing make certain that the brake shoe is aligned with the wheel rim. If set too high they will rub on the tyre, causing excessive wear, and too low, the brake pads can slip under the rim and foul the spokes.

Brake Adjustment Procedure. 1: By hand, close both brake arms (B) together against the rim to make sure that the brake shoes (C) meet snugly against the wheel rim. If the brake shoes do not meet the wheel rim, loosen nut (G) and adjust position of brake block vertically so that it fits tightly against the wheel rim.



2: After adjusting brake block position, screw brake cable adjuster screw (F) almost all the way down, again close both brake arms in this position, loosen anchor bolt (D) and pull control cable (E) downwards until no slack is left in the cable. Then retighten anchor bolt (D) securely.

3: Work the lever and if you find the brake blocks do not grip the rim simultaneously and evenly, adjust the block tension, prod brake arm spring (J) to equalize balance. Then lubricate where indicated. The rear hand brake is assembled and adjusted in the same manner. the rear caliper arms are inserted and positioned into the rear stay and positioned by fastening the pivot bolt through the rear stays. Again the brake blocks are pressed against the rim surface and the control cable pulled downward until there is no slack in the cable and the anchor bolt is then firmly tightened.

(Cont:) **Operation and adjustment**

On both the front and rear brakes there is an adjusting cable screw which controls cable tension and adjusts the position of the brake shoe with respect to the rim surface.

Quick Release Brakes. On cycles fitted with quick release hubs a similar function has been incorporated in the brakes to facilitate easy removal of the wheel.

A small lever is attached to the brake cable anchor bolt and when raised eases the tension on the cable slightly opening the caliper and allowing the tyre to pass between the brake shoes. After the wheel is replaced always remember to readjust the brakes to the correct tension.

Cantilever Brakes. Where these are fitted care should be taken to ensure that brake pads are clean and aligned with the rim.

Quick Release Hubs. On some cycles a quick release type hub is fitted to enable removal of the wheel without resorting to the use of a spanner. Simply swing the quick release lever to the open position and the spindle will disengage from the fork tips. To replace, centre the wheel in the forks, adjust the nut on the opposite side from the lever to take up any excess play, and swing the lever to the closed position. Finally, check that the wheel is firmly fitted.

Care should be taken when leaving the cycle in a public place to use a lock that will secure the wheels as well as the frame.

Freewheel Clusters. 10 Speed
There are two types of cluster currently in use.

10 Speed

1 Cassette Type (Freehub) To remove this type the outer or smallest sprocket should be unscrewed from the cassette body and the remaining sprockets drawn off the splines. It is important that the sprockets are removed correctly to avoid damage and this type of operation should probably be left to your cycle dealer.

2 Traditional Cluster With the use of a special tool the whole cluster including the freewheel mechanism may be unscrewed from the hub. The individual sprockets may then be altered or replaced if necessary, once again with the use of the appropriate tools.

The removal and replacement of sprockets is not a simple business and requires experience and a range of specialist tools. Altering sprocket sizes leads to alteration of gear ratios and may further lead to altered chain lengths and even to different rear gear changers. Unless you are very experienced it is a matter best left to your cycle dealer.

Derailleurs (Chain Shifters). The shifting levers, mounted on the handlebar stem, operate as follows. The left lever controls the front derailleur and chain-wheel. The right shifting lever controls the rear derailleur and gears 1 to 5 (10 Speed) or 1 to 6 (12 Speed). The small rear sprocket produces high gear ratios for speed work or down hill riding, ranging through to the largest gear for up hill work.

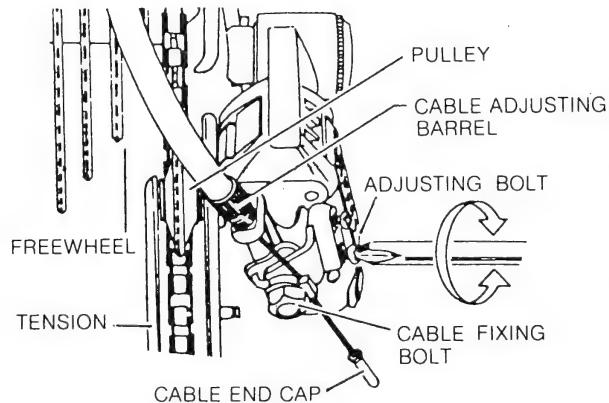
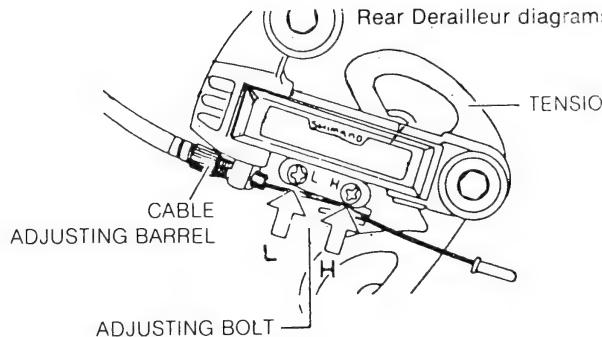
The small front chainwheel on 10 or 12 Speed cycles produces low gear ratios while the large front chainwheel produces higher ratios.

To successfully shift the chain from one sprocket (gear) to another the CHAIN MUST BE MOVING. Simply maintain pedalling speed and at the same time move either shifting lever until the chain moves onto the desired sprocket.

The top pulley guides the chain onto the sprockets and the bottom tension pulley automatically keeps the chain at the correct tension.

10 Speed

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(Cont:) Operation and adjustment

Adjustments are made in the following order:

- (1) Shifting lever
- (2) Rear Derailleur
- (3) Front Derailleur
- (4) Cable

1: Shifting lever. If the chain keeps jumping from a larger to a smaller rear sprocket (gear) generally the shifting lever is loose and this can be corrected by tightening the lever fixing bolt. (See P.14).

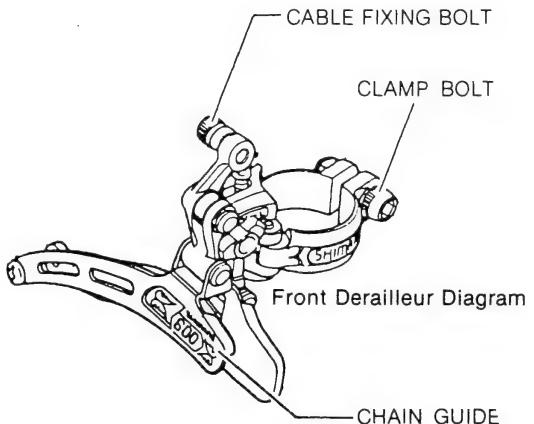
2: Rear Derailleur. If the rear derailleur shifting lever is fully released or fully pulled and the chain does not shift to the high gear (small sprocket) or low gear (large sprocket) or it produces a loud noise, or the chain comes off, the adjusting bolts of the rear derailleur requires adjustment. Either (L) for low or (H) for high.

3: Front Derailleur. If the front shifting lever is released to low and the chain on the low gear (large sprocket on rear wheel) touches the inside of the front derailleur chain guide adjusting bolt (L) needs adjustment. But if the front shifting lever is fully pulled to top speed and the chain on the high gear (small sprocket on rear wheel) touches the inside of the opposite side of the front derailleur chain guide, then adjusting bolt (H) needs adjustment.

10 Speed

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4: Cable. If the shifting levers are returned to normal (e.g. high rear derailleur or low front derailleur) and the cable slackens or pulls tight, the front derailleur and rear derailleur cables need to be adjusted by the cable fixing bolt.

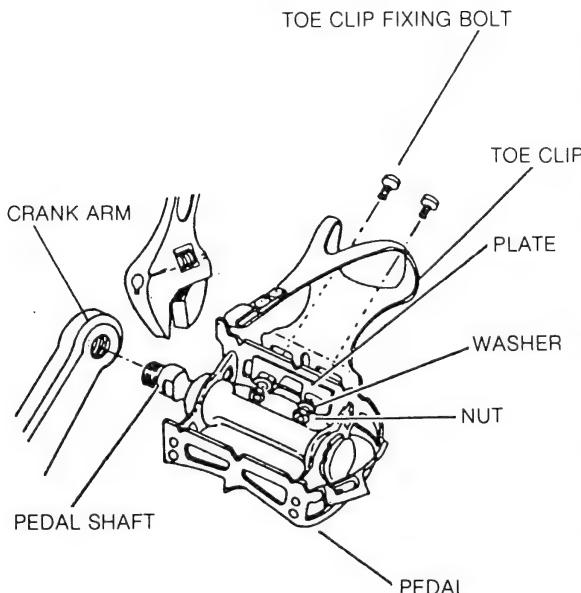


Note. Make sure adjustments are such that the chain cannot be derailed completely off to the left of the inside chainwheel or completely off to the right of the outside chainwheel.

Derailleur Maintenance. All derailleur parts and controls should be lubricated frequently. Aluminium derailleur parts can corrode and prevent free and easy movement. Steel will, of course rust if not properly protected and lubricated. Control cables and housings are susceptible to rust which can also prevent smooth shifts. Cable wear may make it necessary to adjust the cable before all gears can be engaged. Many parts of the derailleur may be obtained and installed individually: However it may be less expensive to install a complete new derailleur assembly.

As special tools are required for major adjustments, it is recommended that this work be carried out by qualified bicycle mechanics.

Always ensure that the derailleuer mechanism is kept clean and free from dirt and grime.

(Cont:) **Operation and adjustment**

Crank & Pedals. Each pedal has a different thread. The right hand pedal is marked with an "R" and similarly the left hand pedal with an "L". The right hand pedal must be fitted to the front chainwheel side.

The figure illustrates how to fit toe clips and straps if required.

Note. Left and right are determined from the riding position on the bicycle.

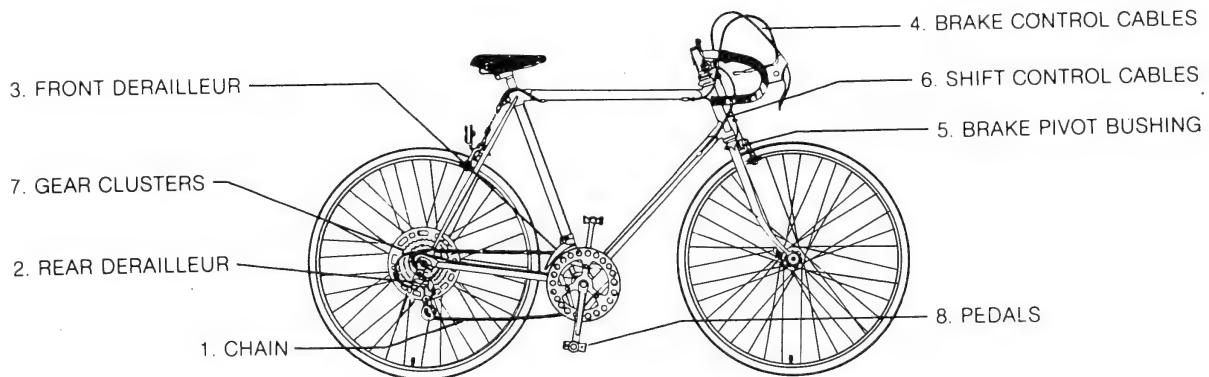
If you detect too much side to side play in the pedal crank, replacement may be necessary. Also replace any bent cranks.

Chrome Surfaces. All chromed surfaces require the periodic use of a chrome cleaner or polish in order to keep the surfaces in a polished state and to prevent deterioration. Care must be taken to ensure oil does not cover wheel rims or brake pads.

Lubrication. Your bicycle has many moving parts which are exposed to the elements. Cleaning and lubrication will keep it running smoother and longer.

The following parts require regular cleaning, oiling and lubrication.

1. Chain
2. Rear Derailleur
3. Front Derailleur
4. Brake Control Cables
5. Brake Pivot Bushing (front and rear)
6. Shift Control Cables
7. Gear Clusters
8. Pedals



(Cont:) **Operation and adjustment**

Flat Tyre Repair. Read complete instructions pertaining to your tyre before beginning repair. Be sure you have the proper patch kit.

Tyres with Tube: Repair kits are available from your nearest bicycle shop.

1. On 10 and 12 speed cycle, shift to smallest rear cog, loosen the axle nut and slide the wheel forward and out of the frame. To remove rear wheel on 3 speed cycle release the rear cable and on coaster hub models unbolt the brake arm before removing rear wheels. Using a tyre lever, lift one complete bead over the wheel rim. Take care in prying with a tyre lever so as not to stretch the wire in the tyre or pinch the tubing.
2. Starting at the air valve, pull the tube out.
3. Check inside and outside the tyre for glass or other foreign objects.

4. Inflate the tube and place it in water. Bubbles will indicate the puncture.
5. Dry and mark the location of the puncture.
6. Prepare the tube and patch according to the patch kit instructions. Apply talcum powder to the patched area to prevent sticking.
7. To refit the tube, deflate and insert the valve through the hole in the wheel.
8. Tuck the tube around the wheel rim, making sure there are no folds or twists, and inflate slightly.
9. Use your thumb to push the tyre bead back over the wheel rim. Use no tools in mounting tyre and tube.
10. Inflate to proper pressure.

Warranty

1. Cycles bearing the decal "Lifetime Frame Guarantee" on the frame have a lifetime warranty on the frame and forks.
2. The frame and forks of cycles not bearing the Lifetime decal will be warranted for a period of 24 months from date of purchase.
3. The cycle component parts will be warranted for a period of 12 months from date of purchase.
4. This warranty is valid only for the original consumer.
5. This warranty does not apply to normal wear and tear or if:
 - a) The cycle is sold or rented
 - b) Failure or damage occurs due to inadequate pre-delivery assembly
 - c) A motor is fitted
 - d) Non standard parts are fitted
 - e) The cycle is used in a competitive event
6. This warranty does not cover personal injury, damage to, or failure of the cycle, or any losses arising from an accident.
7. Claims under this warranty must be made through an authorised Cycle Dealer who must also install the replacement warranted parts.
8. Healing Industries Ltd reserve the right to determine whether any claims brought under this warranty are bona fide and further to what extent, if any, any claim falls within the terms of this warranty.

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Notes and Maintenance Record

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In case of theft or loss

The Police Department recommend that you record details of your cycle below and keep this owner's manual in a safe place.



Owner's Name

[REDACTED]

Address

[REDACTED]

City

[REDACTED]

Date Purchased

[REDACTED]

Model No.

[REDACTED]

Serial No.

[REDACTED]

Dealer's Name.

[REDACTED]

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2.11 1987

RECEIVED from Miss Palmer
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being Excess on Sickbank

Dollars

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With Thanks

Per

Cash \$:
Discount \$:
Total \$ 50.00

Dieconal Case

AMERICAN CHURCH

BRONXVILLE

18

14

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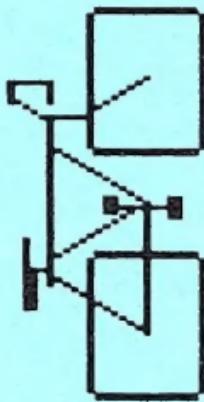
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10% Discount

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Signature